

## **DISPOSABLE PLATE SYSTEM**

### **Field Of The Invention**

The present invention relates to paper plates, and more particularly to paper plates that have tabs or notches on their periphery that facilitate separating each of the plates from a stack of paper plates.

### **Background of the Invention**

Paper, plastic and plasticized paper disposable plates are very popular and enjoy wide acceptance and use by consumers. The paper and plasticized paper disposable plates are generally made by stamping them out of flat blanks to form the plate with a raised edge as is well known in the art. Often multiple plates are formed by a single stamping. Due to the stamping process or due to multiple plates being stacked and pressed together to reduce their volume for packaging, the plates usually tend to stick to each other. To separate one plate from another plate in a stack a knife edge, fingernail, or other pointed or sharp object must be inserted between the edge of two plates to separate them. Users of such disposable plates often do not exert much effort in separating the plates and use two or more plates stuck together as a single plate. The result is that a stack of plates is used up more quickly than if a single plate at a time is utilized.

Plastic disposable plates are made by other processes. However, when the disposable plastic plates are stacked together with many other plates and pressed together to reduce their volume for packaging, these plates also tend to stick to each other. Again, to separate one plate from another plate in a stack a knife edge, fingernail, or other pointed or sharp object must be inserted between the edge of two plates to separate them.

Thus, there is a need in the art for disposable plates that may easily be separated from each other in a stack of plates.

## **Summary of The Invention**

The previously described need in the prior art for disposable plates that may easily be separated from each other in a stack of plates is met by the present invention. Disposable paper, plasticized paper and plastic plates are each manufactured with a tab on their periphery, or with a notch on their periphery. These tabs or notches are preferably offset from each other when the plates are stacked, rather than being positioned one above the other in a stack of disposable plates.

A tab formed on the edge of a disposable plate at the top or bottom of a stack of plates may easily be grasped by the fingers of one hand of a user, while the tab formed on the edge of an adjacent plate is grasped by the fingers of the other hand of the user. As the two grasped tabs are pulled in opposite directions the two disposable plates easily separate.

When a notch is formed on the edge of each disposable plate it is much easier for a user to separate the edge of one plate from the edge of an adjacent plate and thereby separate the two plates.

An indicia such as a dot that is of a different color than the color of a plate may be printed or else wise placed on each tab to help distinguish the tabs from the plates.

## **Description of the Drawings**

The invention will be better understood when reading the following Detailed Description in conjunction with the drawings in which:

Figure 1 shows a stack of disposable plates with each plate having a tab formed on its periphery during manufacture and with the tab of each plate being offset from the tab of adjacent plates when the plates are stacked together for packing; and

Figure 2 shows a stack of disposable plates with each plate having a notch formed in its periphery during manufacture and with the notch of each plate being offset from the notch of adjacent plates when the plates are stacked together for packing.

The plates in the stack of plates shown in each of Figures 1 and 2 are shown slightly separated from each other only to better show the plates and the tabs on the periphery and the notches in the periphery of each disposable plate.

### **Detailed Description**

In Figure 1 is shown the preferred embodiment of the invention which is a stack 10 of disposable paper, plasticized paper, plastic or other type of disposable plates 11 each having a tab 13. Each disposable plate 11 has a flat bottom surface surrounded by a raised edge 12 as is known in the art. While a narrow raised edge 12 is shown for each plate 11, the edge 12 may be wider or higher. The narrow raised edge 12 shown in Fig. 1 for each plate 11 merely facilitates seeing the details of each plate 11 in stack 10 of plates. In the following detailed description reference is made only to paper plates but it should be understood that the present invention is intended to be used with any type of disposable plate, no matter what material the plate is made from or how the plates are formed into their final shape. The invention is intended to be used to separate such plates from each other when they are in a stack of such plates. As previously described the plates 11 in the stack 10 of plates shown in Figure 1 are shown slightly separated from each other only to better show the plates and the tabs on the periphery of each disposable plate.

As the paper plates 11 are stamped out and their raised edges 12 formed on their periphery, a tab 13 is also stamped out as part of edge 12 of each disposable plate 11. This is the preferable mode of practicing the invention. However, it should be understood that tabs 13 may be made separately and attached to the periphery of the raised edge 12 of each plate after the

plate 11 is formed. Tabs 13 may be attached adhesively or in many other ways. For instance, when disposable plates 11 are made from plastic the separate tabs 13 may be ultrasonically or heat fused to the periphery of the raised edge 12 of each plate in a manner known in the art.

To facilitate seeing tabs 13 on the edge of each plate 11 an indicia such as a colored dot 14 may be printed or otherwise affixed onto each tab 13. The colored dot should be a bright color, or any that color stands out with respect to the color of plates 11. For instance, paper plates 11 are generally white so dot 14 may be black. Such indicia 14 in the form of dots are only shown on the tabs 13 of the top two plates 11 of the stack of plates 10 shown in Figure 1 to contrast how they help see tabs 13 as compared to the tabs 13 on the remainder of the plates 11 in stack 10 which have no such indicia. The indicia on each tab 13 of each plate 11 may also be distinctive from each other. That is, the tabs 13 may be different colors, or have different graphical figures or different letters thereon. In Figure 1 the bottom five plates are alphanumerically designated “A” through “E”. While there are only twenty-six letters in the alphabet, numbers may be combined therewith to extend the range of distinctive designations on tabs 13. For example, plates may be marked, “A” through “Z”, “A1” through “Z1”, “A2” through “Z2” and so forth. These distinctive designations help users of the disposable plates 11 to identify their plate 11 from other plates 11 at a picnic or other function or place at which the plates 11 are used.

In Figure 1 tabs 13 are shown as being square in shape, but any other shape may be used. For example, tabs 11 may be semi-circular, pointed or any other shape. For simplicity plates having tabs 13 of other shapes are not shown.

Although not shown in Figure 1, plates 11 may be stacked for packaging with the tab 13 of each plate 11 being one above the other in a column. However, it is preferable that the tabs 13 be horizontally offset from each other as shown in Figure 1. When the tabs 13 are horizontally offset they are more easily seen and two adjacent tabs 13 individually grasped for the separation of two adjacent plates 11.

The amount of offset of tabs 13 may be wide, as shown in Figure 1, or the offset may be small with one tab 13 partially overlapping adjacent tabs 13. However, if the tabs 13 are offset an amount such as shown in Figure 1, the tabs 13 of two adjacent plates may more easily be seen and grasped. For example, when tab 13 of the topmost plate 11 in stack 10 is grasped and pulled upward while tab 11 of the second, adjacent plate is grasped and pulled downward these two plates will be easily separated.

In Figure 2 is shown an alternative embodiment of the invention. Shown is a stack 10 of disposable paper plates 11 with each plate 11 having a notch or cutout 15 made in the periphery of its raised edge 12 during manufacture, and with the notch or cutout 15 of each plate 11 being offset from the notch or cutout 15 of adjacent plates 11 when the plates 11 are stacked together into a stack 10 for packing. As previously described the plates 11 in the stack 10 of plates shown in Figure 1 are shown slightly separated from each other to better show the plates 11 and the notches or cutouts 15 in the periphery of each disposable plate 11.

Similar to the description of Figure 1 the amount of horizontal offset of notches or cutouts 15 may be wide, as shown in Figure 2, or the offset may be small with one notch or cutout 15 partially overlapping another notch or cutout 15. The notches or cutouts 15 may be of any shape including the semicircular shape shown in Fig. 2. Notches or cutouts 15 provide some improvement in separating plates 11 from a stack 10 of plates as compared to separating stacked plates in the prior art.

While what has been described above is the preferred embodiment of the invention and one alternative embodiment, it will be appreciated by those skilled in the art that numerous changes may be made without departing from the spirit and scope of the invention.

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What is claimed is: